

What is Benzene?

Benzene is a naturally occurring compound.



Properties

- ◆ Colorless liquid
- ◆ Sweet odor
- ◆ Evaporates quickly
- ◆ Dissolves only slightly in water

*Benzene is made by separating it from the other natural components found in coal and oil.
It is widely used in the United States.*

Benzene is one of the top 20 chemicals produced annually in the United States.



Benzene is used to make other chemicals and household products.

- ◆ Gasoline
- ◆ Glues, adhesives, paint strippers, and some art supplies
- ◆ Household cleaning products
- ◆ Plastics, man-made rubber, and pesticides



Benzene in The Environment

Benzene is produced naturally by volcanoes and forest fires. It is also present in many plants and animals and in fossil fuels such as coal and oil.



Industrial processes are the main sources of benzene in the environment

What happens to benzene when it enters the environment?

- ◆ Benzene evaporates very quickly into the air. It can pass into the air from water and soil.
- ◆ It reacts with other chemicals in the air and usually breaks down within a few days.
- ◆ Benzene in the air can attach to rain or snow and be carried back down to the ground.
- ◆ It breaks down more slowly in water and soil, and can pass through the soil into underground water.
- ◆ Benzene does not build up in plants or animals.



Health Effects of Benzene

How are People Exposed to Benzene?

- ◆ Working in industries that manufacture or use benzene is the greatest source of exposure.
- ◆ Outdoor air contains low levels of benzene from motor vehicle exhaust, evaporation from gasoline stations, and tobacco smoke.
- ◆ Indoor air contains higher levels of benzene from products such as glues, furniture waxes, detergents and paints.
- ◆ Consuming water that contains benzene which usually results from a spill or leak during the handling and storage of gasoline.



Short-term Health Effects

- ◆ Skin, eye, and Respiratory tract irritation
- ◆ Headache, drowsiness and dizziness
- ◆ Very high exposures can result in unconsciousness and even death.

Long-term Health Effects

- ◆ Benzene is known to cause cancer in people.
- ◆ Long-term exposure to high levels of benzene in air can cause leukemia which is a cancer of the blood-forming organs.
- ◆ Benzene exposure can result in anemia.
- ◆ It may affect the immune system.

